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SDG 14

Ocean governance for sustainability

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Global powers and Pacific Island nations are racing to divide up the ocean's resources using the narratives of Blue Economy and Blue Growth to justify their exploitation. Technology advances make once-unfeasible seafloor depths increasingly viable and will allow corporations to plunder oceanic resources in a bid to secure food security and alternative sources of minerals and energy for rapid growing populations.

The Blue Economy concept grew out of the broader green growth concept and a growing concern about the heavy damage wrought on our ocean ecosystems by overfishing, habitat destruction, marine pollution, ocean acidification and climate change. The science behind the health and resilience of the ocean to sustain human activities and life on the planet remains little discussed, a gap that SDG 14 and the 2030 Agenda attempt to address. For Pacific people who have a spiritual relationship with the ocean, its industrialization reshapes the way its value was defined by former colonial rulers into that of transnational corporations and multilateral financial institutions. Such a move must be resisted not just for the benefit of the Pacific people but for all of humanity and the planet.

Ocean resources have been the foundation of global trade and economic activities, a major source of food, energy and livelihood for centuries.[1] Oceans provide 50 percent of atmospheric oxygen and absorb 25 percent of human-induced CO_2 emissions and the circulation dynamics make our planet habitable.[2] Oceans are home to extraordinary biodiversity and unique ecosystems.[3] Science is only just discovering how much of a global service to the functioning of our planet our oceans provide.[4]

Increasingly over the last 13 years, international concerns have focused on the health of the world's oceans and threats to marine biological diversity, including illegal, unrecorded and unreported (IUU) fishing and destructive fisheries practices, bottom trawling and climate change along with emerging issues such as bio-prospecting in the deep sea.

At least 40 percent of our oceans are already heavily polluted and showing signs of ill health.[4] In the past decades, as scientific understanding increases, concerns over how to manage and conserve the areas beyond national jurisdiction have heightened. Scientists admit to having a poor understanding of the deep ocean; more is known about the surfaces of the moon, Venus and Mars. The 2018 special report

1 The ocean is a primary source of protein for over 3 billion people (www.un.org/sustainabledevelopment/oceans/).

2 See http://enb.iisd.org/oceans/climate-platform/html/enbplus186num14e.html.

3 Oceans contain nearly 200,000 identified species, but actual numbers may lie in the millions (www.undp.org/content/undp/en/home/sustainable-development-goals/goal-14-life-below-water.html).

4 See www.undp.org/content/undp/en/home/sustainable-development-goals/goal-14-life-below-water.html.

by the Intergovernmental Panel on Climate Change (IPCC) on the effects of global warming of 1.5 degrees or more and its catastrophic impact on oceans and consequent sea level rising shows the urgent need for new tools and methods for the governance of the world's oceans.[5]

Harvesting the oceans under the Blue Economy

The UN puts the value of the coastal and marine resources at US$ 3 trillion or about 5 percent of world GDP. According to a 2014 report, China's ocean economy is worth US$ 962 billion or 10 percent of its GDP while the USA values its at US$ 258 billion, or 1.8 percent of GDP.[6]

Updated figures from the European Union estimate the value of new ocean industries at 5.4 million jobs, and gross added value of € 500 billion.[7] The OECD suggests that the ocean economy is likely to outpace the global economy in the next 15 years. Even so, some commentators caution that the true value of oceans remains undervalued.

Framed as perhaps the last untapped, under-explored and under-exploited region in the world, the Pacific Ocean is set to be a contested space for resources.[8] The Blue Economy heralds a new race to carve up the Pacific, turning the Pacific Ocean, from surface to seafloor, into a crowded and contested space. Pacific state leaders are courted with economic gains that are a fraction of the value of the ocean resources that will be extracted. The destruction of Pacific fish stocks after years of licensing to allow uncontrolled commercial fishing extraction is a case in point.[9]

Legal instruments: Still fit for purpose?

There are a number of relevant UN legal instruments governing different uses of the ocean, yet each is aimed at a different use or need. Shipping is governed by the International Maritime Organization (IMO), while fisheries are governed by the Fisheries

5 IPCC (2018).

6 "Defining and quantifying China's ocean economy", Marine Policy, Vol 43, January 2014, pp. 164-173.

7 See https://ec.europa.eu/maritimeaffairs/policy/blue_growth_en.

8 See http://siteresources.worldbank.org/INTPACIFICISLANDS/Resources/3-chapter+1.pdf.

9 Gillet (2016).

Box 14.1

Significance of the Pacific Ocean

Covering approximately 59 million square miles and containing more than half of the free water on Earth, the Pacific is by far the largest of the world's ocean basins. Its vastness is illustrated by the fact that all of the world's continents could fit into the Pacific basin.[1]

Pacific Island countries retain considerable control and power over their ocean territory which comprises a significant portion of the world's ocean – on average 28 times more than actual land area. For example, the Republic of Kiribati has a land-size half that of London but has the 13th largest exclusive economic zone in the world, making it a large ocean state.[2]

The indigenous view of the Pacific Ocean is that it is our home and our source of life, one inherited from our ancestors who paid attention to the protection and conservation of ocean resources. The People of Oceania's well-being never derived solely from the land (which is small in comparison) but equally and perhaps more significantly from the Ocean, which, was treated as a single, sacred unit, integral to life and culture in the region.

1 See https://oceanservice.noaa.gov/facts/pacific.html.

2 See https://sustainabledevelopment.un.org/content/documents/2189SIDS-IN-NUMBERS-CLIMATE-CHANGE-EDITION_2015.pdf.

Stocks Agreement although managed by regional fisheries management organizations (RFMOs). Deep sea minerals are governed by the International Seabed Authority (ISA) while the UN Convention on the Law of the Sea (UNCLOS) primarily governs the oceans. Matters relating to trade such as fisheries subsidies are dealt by the World Trade Organization (WTO). There is currently no mechanism or framework that deals with how to coordinate these different sectors that are under distinct legal frameworks, making it difficult to effectively address the various conflicts of interests.

Protection of the ocean was included in the UN Framework Convention on Climate Change (UNFCCC), specifically in Article 4.1 (d) concerning the sustainable management, conservation and enhancement of sinks and reservoirs of greenhouse gases including 'oceans, coastal and marine ecosystems'. Issues such as equity, benefit sharing, traditional knowledge and capacity building for small island developing states to benefit from ocean resources and to ensure their sustainability can be found in several instruments, most notably the Convention on Biodiversity and a new instrument on the conservation and use of areas beyond national jurisdiction (BBNJ), currently being negotiated.[10]

But despite its critical role as a carbon sink, the ocean has largely been ignored by the UN climate change negotiations.[11]

SDG 14 and the 2030 Agenda

The inclusion of the oceans as a stand-alone goal was heralded as a breakthrough, focusing on ocean acidification as a way to bridge the 2030 Agenda and the UNFCC process. It also attempts to address the issue of IUU fishing by tackling the issue of fisheries subsidies, currently under consideration by the WTO.

Yet SDG 14 is disturbingly quiet on deep sea minerals particularly in the area described as the common heritage of mankind (Clarion Clipperton Zone).

10 See https://www.un.org/bbnj/.

11 See https://unchronicle.un.org/article/international-seabed-authority-and-deep-seabed-mining.

Box 14.2

The ocean's crucial role in climate regulation

Recent scientific research has revealed that deep seabed and hydrothermal vents make potentially critical contributions to both biodiversity and global climate regulation. First discovered over 40 years ago, these unique hydrothermal vents and habitats play a significant role in sequestering both methane and toxic sulphide. Scientists conclude that the life forms in these vents and seeps consume 90 percent of the released methane – considered 25 times more potent than carbon dioxide – and keep it from entering the atmosphere. These life forms are literally saving the planet. A 2016 study released by 14 Universities and oceanographic institutions confirmed that carbon sequestration by hydrothermal vents and seeps were even more extensive in space and time than previously thought.[1] There is more methane on the ocean floor than there are other forms of fossil fuels left in the ocean, its release would be a "doomsday climatic event". Recent scientific breaks through have further revealed that most of the excess heat resulting from atmospheric Green House Gas (GHG) concentrations has been absorbed by the deep ocean, thereby significantly limiting climate change impacts on the ocean's surface and on land.

Even as researchers learn more about the deep sea habitats role in sustaining a healthy planet, these habitats are being threatened by a wide range of human activities, including deep sea mining, bottom trawling and energy harvesting. In addition, the deep sea mining industry has heavily promoted the need for these rare earth minerals for ironically, 'green' technology.

1 See https://phys.org/news/2016-05-hydrothermal-vents-methane-seeps-enormous.html.

The UN Ocean Conference in June 2017 highlighted seabed mining under a Blue Economy narrative with side events and voluntary commitments pushed by the International Seabed Authority (ISA).[12]

A review of SGD 14 raises significant questions on whether the existing and somewhat fragmented institutional structures and arrangements established under UNCLOS are still fit for purpose. The question is whether they can be re-designed to rebalance the growing economic demands under a Blue Economy narrative and at the same time protect the health of the oceans necessary to ensure life itself on the planet.

The UN Conference to Support the Implementation of SDG 14 (the Oceans Conference) in June 2017 sought to engage "all stakeholders" in fulfilling Goal 14 through "innovative new partnerships". It issued a Call to Action and announced a list of voluntary commitments to fulfil the goal. One, called the Abyssal Initiative, jointly announced by UN DESA and the International Seabed Authority (ISA) intends to promote the Blue Economy as a means of enabling Small Island Developing States (SIDS) to benefit fully from the sustainable development of deep sea mineral resources.[13] However, a review of model legislation, funded by the European Commission,[14] found that it focused more on ensuring a clear licensing regime and conditions favourable to industry rather than establishing effective safeguards and sufficient environmental protection for Pacific peoples and the environment.[15]

Several Pacific island states have made applications on behalf of mining companies, including Nautilus Minerals, Deep Green and Chinese Oceans Minerals Resources Research and Development Association (COMRA),[16] all without explicit consultation with their own people. There is a seemingly revolving door for governments acting as agents for industry interests, as is evident in the ISA.

What's worrying is that the ISA assumes that the governance of the area considered the common heritage of mankind, the Clarion Clipperton Zone, is the sole responsibility of States to act on our collective behalf without requiring indigenous peoples and communities' participation let alone their free, prior and informed consent. However, in this new era of ocean exploitation, Pacific Island states are in uncharted territory as their knowledge of the resources in their EEZs is limited. At least four Pacific Island states (Tonga, Nauru, Kiribati and the Cook Islands) are actively involved in the Zone.

Caught in the net

In 2017, following the Oceans conference on SDG 14, members of the WTO set a deadline of 2020 to rein in harmful subsidies in the fishing industry that have led to widespread collapse of global fish stocks. Their mandate, as part of the Doha Development Agenda (DDA) and the Hong Kong Ministerial Declaration, is to clarify disciplines on fish subsidies. Despite no consensus in 16 years of negotiations, members seem closer to a potential agreement on the issue than ever before. In part this is due to SDG target 14.6, which includes a mandate to, among other things, "by 2020, prohibit certain forms of fisheries subsidies which contribute to overcapacity and overfishing, and eliminate subsidies that contribute to illegal, unreported and unregulated [IUU] fishing …"

Any outcome will have major implications for Pacific Island states as fish provide 50-90 percent of animal protein in rural areas (primarily from subsistence fishing), and 40-80 percent in many urban centres. Fisheries is also a key driver of developing country economies with fish and fish products generating a

12 See https://oceanconference.un.org/commitments/.

13 See https://oceanconference.un.org/commitments/?id=16538.

14 The SPC-EU Deep Sea Minerals Project has 15 Pacific Island states: The Cook Islands, Federated States of Micronesia, Fiji, Kiribati, Marshall Islands, Nauru, Niue, Palau, Papua New Guinea, Samoa, Solomon Islands, Timor Leste, Tonga, Tuvalu and Vanuatu. See the SPC-EU DSM Deep Sea Minerals Project, Secretariat of the Pacific Community (http://gsd.spc.int/dsm).

15 Blue Ocean Law (2016a) and (2016b).

16 ISA licenses have been awarded to: Cook Islands Investment Corporation (July 2016); Marawa Research and Exploration Ltd (Kiribati Jan 2015); Tonga Offshore Mining Ltd (Jan 2012); Nauru Resources Ltd (July 2011).

Box 14.3

Cautionary tale of deep sea mining and oceans' untapped riches

Consumer demand for electronic minerals such as copper, lithium, rare earth minerals, cobalt, and manganese nodules coupled with advances in technology and infrastructure[1] is set to make the ocean floor the next frontier for exploitation.

The total area of seabed covered under deep sea mining (DSM) licenses is over 1.3 million square kilometers. At the time of writing, the ISA had issued 29 licenses, 22 of which are located in the Pacific Ocean, 16 of them in the Clarion Clipperton Zone, approximately 500 miles southeast of Hawaii. While the ISA is still in the process of developing a mining code for a little-known part of the world, it ultimately plans to award contractors with 30-year exploration licenses.

In the Pacific, Cook Islands, Fiji, Kiribati, Nauru, Papua New Guinea (PNG), Solomon Islands and Tonga are some of the first to undertake seabed mining within their Economic Exclusive Zones (EEZ). PNG has already issued the world's first commercial license due to start exploitation by 2019 although Nautilus Inc has run into financial difficulties in the Solwara 1 project.

Proponents argue that sea floor ores are exceptionally rich[2] and that as it takes place in smaller areas, DSM is more environmentally friendly than land-based mining. This low-risk and high-return rationale is being pushed strongly by the ISA and UN DESA, despite the fact that it is not known what the full impact will be on the deep seabed and the waters where it will take place.

Scientific knowledge is only just beginning to catch up to the significance of deep seabed, seamounts and hydrothermal vents and their critical contribution to both biodiversity and global climate regulation.[3] Scientists have discovered over 300 new species, 80 percent of which are endemic around vents where temperatures can be as high as 113 degrees Celsius, making each vent system unique. Studies have found that there would be immediate adverse impacts on ocean ecosystem health, species abundance and biodiversity, with little or no recovery of biodiversity in mined sites.[4] Moreover, the impact of industrial-scale operations (in terms of size, intensity and duration) would be devastating, covering on the order of 10,000 to 100,000 sq kilometers of the ocean floor.

Many of the projected impacts on biodiversity and species extinction would likewise hurt communities. Pacific communities in New Ireland and East New Britain in PNG are already experiencing negative impacts from exploratory mining and drilling occurring 30 to 50 kilometers away. Villagers have reported increased frequency of dead fish washed up on shore, including a number of deep sea creatures hot to the touch. The PNG Fisheries Authority warned that "vast areas could be polluted and with tuna being a highly migratory species, contamination of stock could have dire consequences for the entire region, far overstretching the immediate impact zone of the mine".

1 It is estimated that every mobile phone needs 0.02kg of copper; Volkswagen will need at least a third of the global supply of cobalt by 2025 for energy efficient cars; while if all European cars are electric by 2040 (using Telsa Model 3), they would require 28 times more cobalt than is produced now (https://www.bbc.co.uk/news/resources/idt-sh/deep_sea_mining). See also Hein et al. (2013).

2 Nautilus Minerals forecasts that in copper alone, seabed mining could be worth US$ 30 billion a year by 2030 (https://www.bbc.co.uk/news/resources/idt-sh/deep_sea_mining).

3 www.pewtrusts.org/en/research-and-analysis/fact-sheets/2018/07/the-western-pacific-ocean#0-overview.

4 See e.g. Dando/Juniper, eds. (2001) and Tunnicliffe (1992).

higher export value than coffee, bananas, cocoa, tea, sugar and tobacco combined.

Fisheries subsidies by developed countries have long been contentious for Pacific Island states which see their natural resources exploited by highly subsidized foreign fleets at the expense of their own potential local industries. As reported by IUU Watch, in the Western and Central Pacific Ocean, illegal, unregulated and unreported fishing "claims at least €470 million annually, with actual lost revenue to Pacific Island countries around €140 million."[17]

Countries with huge industrialized fishing fleets are using these negotiations to try to include matters such as management measures under the ambit of the WTO. Any outcome must ensure that small-scale and artisanal fisherfolk can be supported, that the policy space of Pacific developing countries and Least Developed Countries (LDCs) is protected through effective special and differential treatment, and that there is no undermining of fisheries management measures.

Call to ensure indigenous peoples and communities' participation

Although the potential negative environmental impacts of DSM are increasingly being documented, less attention is being paid to the human rights violations, particularly of indigenous peoples and communities.

The legal assumption is that because most of the DSM activities are designated in areas beyond national jurisdictions, the rights of indigenous peoples and communities including those living in coastal states closest to proposed sites, are not impacted. This ignores the fact that effects are experienced inside and outside national jurisdictions. Indigenous peoples can credibly claim they are entitled to invoke the highest protection of international law. Moreover, indigenous communities have obligations to sponsoring states (Tonga, Kiribati, Nauru and the Cook Islands) to ensure their compliance with the highest standards of environmental and human rights laws.

A recent assessment of the regulatory frameworks governing DSM[18] shows why it is so important for the principle of free, prior and informed consent for indigenous peoples and communities to be applied to deep sea mining particularly, particularly in the Pacific region, where numerous indigenous communities stand to be directly and disproportionately impacted by DSM. The authors argue that UNCLOS clear parameters on the prevention of harm to the marine environment have created a due diligence standard that is imposing even higher duties on an increasingly wide range of actors.

Conclusion

A review of SDG 14 provides the global community with the opportunity to further consider how to strengthen global governance of oceans. It is clear that there are significant gaps and a need for strong accountability mechanisms to resolve what are clear conflicts between different users in areas beyond national jurisdictions to ensure the health of the oceans for future generations. It may require a new UN body on Oceans.

17 http://www.iuuwatch.eu/2017/09/fisheries-africa-caribbean-pacific-immense-opportunities-critical-challenges/.

18 Blue Ocean Law (2016b).

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